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Photograph by O. C. Havens

BLANKET BANDS AND HEADBANDS PLEASE SURVIVING BANDS OF PUEBLOS

Charlie Pinto, a workman on the excavation of Pueblo Bonito, belongs to the Zuñi-speaking tribe of the Pueblo, or house-dwelling, Indians. His long hair is neatly tucked up, and a bandana headband keeps it out of his eyes. The bold stripes of his blanket are a reminder that the Pueblo Indians probably taught the Navajos to weave the blankets for which the latter have become famous (Bulletin No. 4).

HOW TEACHERS MAY OBTAIN THE BULLETINS

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General Headquarters, Washington, D. C.

China's "Open Door" Anxiously Eyed by Customer Nations

THE shadow of a dead Japanese emperor fell across all China at the beginning of this month, and every non-Oriental business man in the country looked up from his desk in alarm.

The Japanese celebrated the birthday of the late Meiji, the enterprising emperor who opened his little island realm to western ideas, and saw it expand into a world power. Part of the celebration was the announcement of a "new order" of cooperation for the nations surrounding the China Sea—Japan, Manchukuo, and China. The slogan of the new regime is "Asia for the Asiatics," and statesmen fear that it may amount to a sort of Monroe Doctrine for the Far East which may exclude Occidentals.

The "new order" startled western nations because it was possible that it might mean the definite closing of the "Open Door" of China's commerce. If so, the action could affect lumber camps of Finland, woolen mills of Poland, sheep ranches of Australia, the wharves of London and San Francisco, the factories of British Birmingham and French Lyons and American Detroit. The aftermath may influence the price of a cup of tea in Morocco, the cost of electric bulbs in England, the supply of felt hats and varnish and Irish linen in the United States.

Uncle Sam Is Biggest of Big Four Customers

The rich China trade has appeared in recent years on the bookkeeping ledgers of almost every country; but the China account is especially important to twenty-five nations, where its figures exceed two million dollars as a yearly minimum. Leading them all is the United States, whose hands across the China Sea dabble in a commerce worth $375,000,000 annually, without counting the huge investment in property and equipment which the U. S. Navy polices for 1,500 miles into the Chinese Republic. Uncle Sam ships to China enough goods annually for every U. S. citizen to receive $1.44 in payment, and purchases from China would lift $1.45 from each American pocket. If airplanes and munitions are counted, the United States supplies one-fifth of all China's imports.

Japan has hitherto held second place in China's commerce, with the advantage of being able to trade across the back fence. Within the present decade Germany has forged forward into third place. Great Britain ranks fourth. But if the dominions and dependencies of England are included—British India, Australia, Hong Kong—it develops that the British Empire has the highest stake of all.

Business men in France and The Netherlands are also concerned over possible losses; while the mother countries are not deeply involved in the China trade, their colonies are, and the fate of China affects the fate of business in both French Indo-China and the Netherlands Indies.

Half of China's business associates sell more than they buy, among them Great Britain, Japan, and Germany. If the entire China trade should fall to Japan, about fourteen other nations would lose an important customer.

Thriving Commerce in Rails and Rayon and Refrigerators

France counts on China as a market for rails. Belgium hopes to continue selling railway coaches by the four-million-dollars' worth. Great Britain has a lively trade in locomotives, cotton cloth, and machinery. Australia sends China wheat and wool and timber for railway sleepers. Italy finds silk-raising China a fine market for artificial silk, a commodity which Italy has been delivering there more cheaply than Japan. Poland ships woolens for overcoats to replace the padded cotton jackets which wool-less China had devised. Switzerland, Sweden, and Czechoslovakia have been helping to mechanize China with large shipments of tools and machinery. Norway and Finland send newsprint on which Chinese presses print headlines of Chinese catastrophes.

China's new interest in the machine age keeps Germany and Japan busy supplying machinery, tools, and chemicals. Three-fourths of China's purchases from Germany have been dyes, mainly aniline dyes and artificial indigo, to brighten the textiles which China's own mills are beginning to make. Germany also sells fertilizer to China, and the paper mills of Austria have many Chinese customers.

Such modern items as radios and refrigerators, telephones and rock drills, dynamos and electric equipment cross the Pacific from the United States as additions to the steady trade in oil and timber. Canada, too, ships timber to deforested China, and newsprint as well.

Surrounding countries not so densely populated help out China on the food problem, with

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Photograph by O. C. Havens

HOME FIRES BURNING AT PUEBLO BONITO COOKED JUST SUCH CAKES

Corn meal and water (mixed with salt) cook to paper-thin cakes, called *piki*, on a slab of smooth stone that has been heated over a charcoal fire. Until the Spaniards after 1540 taught them to build chimneys, squaws of the Pueblo Indians probably cooked the family meals of corn cakes, squash, and venison on the flat roofs of their quarters in the pueblo. The baskets show clearly how basketry gave the Indians models for bowls, which were made by coiling a rope of clay around in widening circles (Bulletin No. 4).

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Ismailia Gave Send-Off to Record Non-Stop Flight

AN OBSCURE garrison town of Egypt took its place as the front half of a world record designation: the Ismailia-to-Australia non-stop flight, which set a new record of 7,160 miles on wing. Two British bombers, with crews of three men each, completed man's longest leap on wings at the beginning of this month, when early November storms slowed them down to a speed of 160 to 180 miles per hour. They landed at Darwin, Australia's most northerly town.

These two non-stop planes have lifted the record formerly held by Russian fliers for last year's flight over the top of the world from Soviet Russia to California by way of the North Pole, a distance of 6,306 miles.

The Half-Way Stop on Suez Canal

Ismailia, the nest from which the British super-eagles spread their wings, is a young town in old Egypt that came into being for the purpose of ministering to modern progress in that stronghold of ancient history. It grew up as the center of operations for building the Suez Canal in 1863.

It stands on the shore of Lake Timsah, "Lake of the Crocodiles," through which the Suez Canal passes. Here ships that take the Suez short cut from the Mediterranean to the Orient usually slow down to exchange pilots, for the lake marks the half-way point of the Canal. The width of the lake offers also a convenient spot at which vessels can pass each other in the none-too-wide Canal.

Recently Ismailia has been more prominent than ever before as a link in the chain of outposts that guard the British Empire, for it has been the seat of Britain's "watch on the Suez." Under the treaty signed in 1936 between Great Britain and Egypt, English Tommies moved out of Cairo, Alexandria, and other cities where they have been garrisoned for many years, to be concentrated along the Canal, near Ismailia.

Cottage of De Lesseps, Canal Builder

Strategically located, Ismailia before has played a king-pin role in Suez history. The desert just south of the city echoed to the thunder of guns in February, 1915, when a Turkish army tried to capture the Canal. But French and British troops, with the help of warships anchored in the Canal itself, successfully beat off the attack.

With about 15,000 inhabitants, most of them native Egyptians, the town is beautifully laid out. Ismailia is the seat of the Suez Canal Company's headquarters, and many of the Canal employees live there. Nearby a British garrison has been stationed for many years.

The town was named for Ismail, the first Khedive of Egypt, a spendthrift playboy who lived up to the typical Oriental potentate's reputation for extravagance. To celebrate the opening of the Suez Canal, he built a $200,000 palace in the desert at Ismailia and gave a lavish ball for 6,000 guests, with expenses running into the millions. Now there is nothing left of the palace, and the site of some of the gayest scenes around Suez has been abandoned.

The man to whom the town owes its existence is not forgotten. Travelers still can see the cottage which was the residence of Ferdinand de Lesseps, builder of the Canal.

Actually, Ismailia has two canals. In addition to the sluggish ship canal which has been called the "jugular vein of empire," the desert around Ismailia is crossed

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molasses from the Philippines, rice from Siam and French Indo-China, rice from India, sugar from the Netherlands Indies. Chief item in China's trade with the Netherlands Indies, however, is petroleum, that very important fodder for China's new mechanical horsepower.

Tung Oil in Baskets, Silk, and Strategic Metals Shipped from China

In addition to the possible loss of China's four hundred million customers, many countries dread any upset in their trade with that nation because of raw materials which she supplies. Peanuts to Italy, to Marseilles and to Hamburg; tea to Britain and Algeria and Morocco as well; silk for the United States and France especially; sesamum seeds for The Netherlands; bristles for 75 per cent of the world's toothbrushes and hair brushes; camel's hair for overcoats and hare-skins for felt hats of well-dressed western gentlemen; leather and furs—these are some of the commodities expected by manufacturers and wholesalers the world around when their ship comes in from China. The United States, for instance, keeps warm with thousands of dog skins, fox skins, and other furs from China.

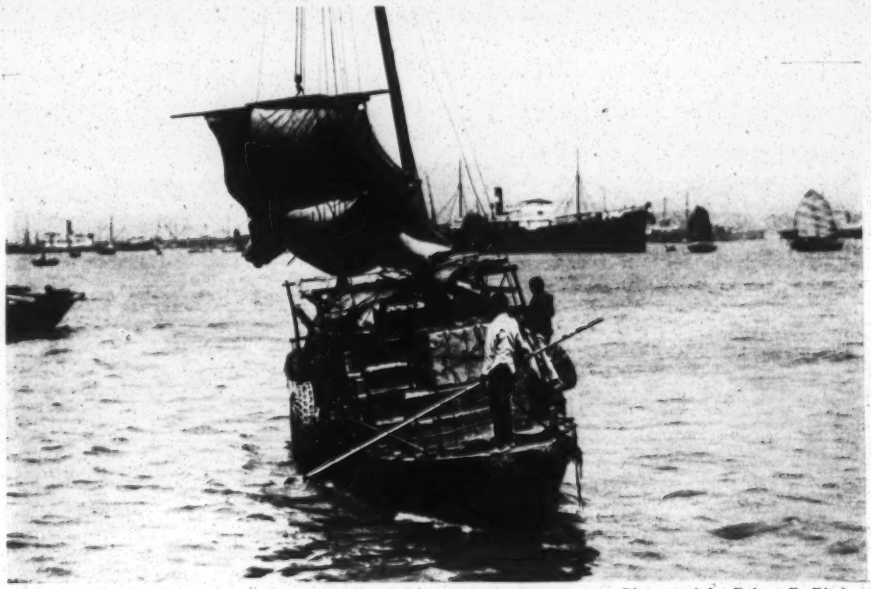
Wood oil, pressed from the nut of the tung tree and shipped away in paper-lined baskets, is important to makers of paint and oilcloth everywhere, and China is still the chief source, although six southern States of the U. S. have tung tree plantations with production increasing each year.

Antimony, tungsten, and tin are some strategic metals of which China has an important output, and manufacturers are already looking for substitutes in case their Chinese supply should be cut off.

Note: See also "Four Thousand Hours Over China," *National Geographic Magazine*, May, 1938; "China's Great Wall of Sculpture" and "Hong Kong, Britain's Outpost in China," March, 1938; "The Rise and Fall of Nanking," February, 1938; "Landscaped Kwangsi, China's Pictorial Province," December, 1937; "Changing Shanghai" and "Peacetime Plant Hunting Around Peiping," October, 1937; "Grand Canal Panorama," April, 1937; "Approach to Peiping," February, 1936; "Coastal Cities of China," November, 1934; "Capital and Country of Old Cathay," June, 1933; "Cosmopolitan Shanghai, Key Seaport of China," September, 1932; "Raft Life on the Hwang Ho," June, 1932; and "How Half the World Works," April, 1932.

See also in the GEOGRAPHIC NEWS BULLETINS: "How China Conflict Invades American Home," week of October 4, 1937.

Bulletin No. 1, November 28, 1938.



Photograph by Robert F. Fitch

BOATS CARRY PAPER COMMERCE FOR CHINA, BOTH INCOMING AND OUTGOING

Paper by the boatload figures in China's trade, as in this laden junk delivering crates of native paper to the steamer (background) anchored in Hong Kong harbor. Since much of China is clean-shaven of forests, paper is made from rice straw or that tall woody grass, the bamboo. Bamboo paper is tough enough to serve as a substitute for window glass in the tropics. Lack of wood pulp makes China a customer of Germany and Japan, both with a timber surplus to export as newsprint, and also of the richly forested Scandinavian countries.

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The Ebro Valley—Hard-Fought Spanish Front

THAT rivers, like railways, are strategic points in wartime is demonstrated as months of dogged fighting in the Ebro Valley find this section of northeast Spain still hotly contested between Insurgent and Loyalist forces.

Longest Iberian stream to empty into the Mediterranean, the Ebro is one of Spain's vital assets. It is, however, a fickle waterway that plunges toward the sea from a mountainous interior, foaming over rapids at some spots and narrowing to a ribbon of water at others. Thus its course is not so much a boon to communications—either in war or peace—as a source of fertility to the region's desertlike soil.

Moorish Invasion Brought Irrigation

On a relief map of mountain-crumpled Spain, the Ebro River marks a lane of precarious fertility through rocky gorges and high, dry plateaus. Rising just west of the great Pyrenees wall that bars Spain from Europe and flowing nearly 500 miles southeast to its Mediterranean outlet, it waters some 32,000 miles of territory.

Today, as war dispatches trace shifting political boundaries across the geographic face of Spain, some four-fifths of the Ebro's long journey is within Insurgent territory, the remainder stretching through the Loyalist battle ground.

Making its tortuous way over the barren tableland of north-central Spain, the river system provides the source for still useful irrigation works built by the Moors in their conquest of nearly a dozen centuries ago. Its canals, serving also as an aid to navigation, form oases of grazing land and patches of cultivation, where at least some of the exotic products introduced by the Moors continue to thrive. Chief among these man-made garden spots of the central Ebro, yielding olives, grapes, tobacco, and cereals, is the irrigation district which surrounds Saragossa (once the "Zaragoza" of the ancient Moors), now held by the Insurgents.

To the south, flowing toward the lower valley in Loyalist hands, the Ebro picks up new tributaries that replace moisture lost through irrigation and absorption, and pour into the thirsty, salty lowlands of Aragon and Catalonia.

Where Geography Makes History

In the last three months of the Spanish War this region has been turned into a battlefield. But even in normal times a continual struggle of man against nature is the price of survival.

Drought and flood take toll of crops. After one of the typically torrential downpours the smallest creeks swell to raging rivers. Canals may reduce the volume of floods, but there are still problems of thin soil easily washed away.

As in most parts of the great Ebro basin, extremes of heat and cold punish both soil and inhabitants of lower districts. Moisture is so scarce in some areas that houses are colored red, because men found it cheaper to mix mortar with wine than to transport precious water.

The people of the Ebro Valley are extreme in character, especially in the more remote villages, accessible only by foot or donkey path. The independent character of these Spaniards, resulting from their isolation, is especially marked among the Aragonese, noted for their stubbornness and bravery. So unyielding are they, both in trifles and in matters of importance, that there is a saying that they "drive nails with their heads."

To the rugged and lonely nature of this part of Spain is largely due not only the personality of its inhabitants but also much important military history.

Because of the great mountain systems that cross Spain horizontally, almost,

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by the small Sweet Water Canal, which flows from the Nile to Ismailia and there branches, sending one arm northward to the Mediterranean and the other south to the Red Sea. Mainly by irrigation from the Sweet Water, Ismailia can afford the luxury of the desert—flowers. Roses and bougainvillea and shade trees signal the town's defiance to the desert which attempts to overwhelm it again with every strong wind. Ismailia streets are lined with "Barbe du Pasha" trees, with pointed blossoms shaped like the "beard of the Pasha."

Lake Timsah was only a swamp until the canal diggers brought it the waters of the Mediterranean, and Ismailia was plagued with that bane of the tropics, malaria. A British army surgeon stationed in India established the guilt of the anopheles mosquito as carrier of the malaria microbe, and Ismailia became his public demonstration that to exterminate the mosquito was to exterminate malaria.

Note: See also "The Suez Canal: Short Cut to Empires," *National Geographic Magazine*, November, 1935; "Flying Over Egypt, Sinai, and Palestine," September, 1926; "Map-Changing Medicine," September, 1922; and "From London to Australia by Aeroplane," March, 1921.

See also in the GEOGRAPHIC NEWS BULLETINS: "Suez Canal Is a Short Cut to the Orient," week of October 28, 1935.

Bulletin No. 2, November 28, 1938.

Photograph from Brig. Gen. P. R. C. Groves

CANAL AND TRAIN ARTERIES PUMP LIFE INTO THE HEART OF A DESERT TOWN

The desert crouches in the corner (lower right), ready to reclaim the Suez Canal and its irrigated borders with the next high wind. To outsiders the Suez is the only canal between the Mediterranean and the Red Sea, but to natives there is another equally important: the Sweet Water Canal, a smaller project for local sailboats and particularly for irrigation. Its water brings fertility to the farms in many shades of green which stop short at the unirrigated desert. The photograph, from 9,600 feet in the air, shows the Suez Railroad (right) as a thin ribbon.

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Indians Again Repair Pueblo Bonito, Prehistoric Ghost Town

NAVAJO Indians went to work last month repairing the 1,000-year-old ruin of Pueblo Bonito, the mysterious deserted village of the Pueblo Indians of Chaco Canyon in northwestern New Mexico. The Navajos are plugging up leaks, propping up walls, and clearing away debris in a spacious, empty ruin; a thousand years ago their ancestors stood respectfully outside its ramparts and handed up freshly killed deer to exchange for the grain they coveted but could not raise—corn.

The Navajos until the past century were nomads, wanderers who nibbled the seeds of desert plants and hungrily launched an arrow at any edible wild creature. Their traditions tell of trading with the well-fed, well-sheltered city dwellers of Pueblo Bonito to improve an uneven food supply. There is a hint that Navajo braves stole Pueblo women, and from the captive squaws the hunter tribesmen learned the strange citified art of weaving, producing the famous Navajo blanket.

Pueblo-Building's Golden Age Parallels Europe's Cathedral-Building Age

"The City Beautiful" was the name European discoverers gave to Pueblo Bonito. No one knows what its own inhabitants called it. It was in ruins and uninhabited when American history began its chapter on the Pueblo, or house-dwelling, Indians (as distinguished from the roving tent-dwellers). Several expeditions, including some sent out by the National Geographic Society, have unearthed enough of it to reveal a prehistoric wonder—a four- or five-story apartment house with upwards of 800 rooms, housing about 1,200 people. Other countries have built their palaces, their temples, their cathedrals, and their monuments on the grand scale, but only in Chaco Canyon have historians found ancient dwellings for the common people on such an extensive floor plan.

One archeologist estimated that Pueblo Bonito may have been the largest apartment house in the world until New York City started its upward expansion with the Spanish Flats on Seventh Avenue—in 1882, almost a thousand years after the Indian architects had built their one-house town.

The Golden Age of their pueblo building was between 919 and 1130 A.D. The dates were found by examining cross sections of trees used as beams in Pueblo Bonito, and interpreting them according to a system worked out by the National Geographic Society's Tree Ring Expeditions. For the Bonitians left no written record of their tenancy. At the same time Europe was building cathedrals, long before their builders thought of ships to seek an unknown New World.

Pueblo Bonito Was Owned by Women

Pueblo Bonito was reported in 1844, and described in 1878 by an army officer who crossed Chaco Canyon on a Navajo-hunting expedition. In 1907 it was set aside as a National Monument, with the surrounding 33 square miles.

The Canyon, a mile-wide gash through high barren mesa, in a ten-mile stretch contains seventeen large pueblo ruins and hundreds of less impressive house-building efforts. Since the canyon can boast a stream only for a few hours after a rain, and there is no living stream for fifty miles in any direction, archeologists wonder how this cluster of Indian towns found water to cultivate their fields of corn and squash and melons, and where they found the heavy logs with which they reinforced their walls of stone and adobe mortar.

Pueblo Bonito's floor plan describes a D, the straight line being a two-story wing 667 feet long, with a semicircle four floors high continuing it. Just beyond

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as some one has said, "like visible degrees of latitude," the path of armies often has been by way of the big river valleys.

In ancient times the Ebro marked the boundary line between Rome and Carthage, while it was westward up this valley that the Romans later pushed their conquest. During the centuries of religious struggle between Christians and Moslems, Ebro towns saw the decisive battles that ended Moorish rule over Aragon and Catalonia.

Eight hundred years later the blood of Englishmen was spilled near the headwaters of this historic river in the Wellington campaign of the Peninsular War against Napoleon, while today, some 400 miles downriver, the Ebro is again making military headlines as Insurgents and Loyalists fight for its last hundred miles.

Note: Further descriptions of the Ebro River Valley may be found in "Turbulent Spain," including a two-page map (pp. 402-403) on which this section may be located, *National Geographic Magazine*, October, 1936; "The Color Camera Records Scenes in Eastern Spain" (color insert), March, 1929; and "Looking Down on Europe," March, 1925.

Bulletin No. 3, November 28, 1938.

Photograph by Jalon Angel

THE EBRO IS A FRIEND TO ARID ARAGON

The hardy men of Aragon find life the harder for lack of water in their barren province, and streams of the Ebro system are pressed into service for life-giving irrigation. The typical countryman of this region shows signs of the hard work necessary to live there, and also the pride and independence he feels at having accomplished it. Felt hats and polished shoes are difficult to get, so he contrives his own headgear of a handkerchief and makes rope-soled sandals fastened on with leather thongs. His archaic knee-breeches, however, are more rarely seen since overalls have been shipped by river, rail, or canal up the Ebro Valley.

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Elba: Napoleon's Thumbnail Empire

IN THIS new heyday of dictators, Napoleon is commanding new respect, and Italy is reminding the world that the world-shaking Little Corporal of the 18th century was an Italian, by virtue of his birth in Corsica. The Italian Government has just reported progress on refurbishing Napoleon's villa on the island of Elba.

Silk curtains and furniture of the Napoleonic household have been moved back into Windmill Villa; a new villa marring the Emperor's landscape has been pulled down. Slowly Elba is resetting the stage of the island's most momentous drama—the palace of its ten-months' monarch, King Napoleon Bonaparte the First, Last, and Only. The restoration is a tribute to Elba's brief career as a kingdom and the political earthquake center of Europe, where an exiled emperor held a comic opera court that kept the world's nerves on edge for 300 days.

Called "Soot Island" for Ancient Iron Industry

Except for its iron deposits—renowned since they supplied 300 suits of armor for the Trojan War—Elba's chief fame is the greatness thrust upon it as the only scrap of his empire that the overthrown Napoleon could retain.

In 1814 his realm was reduced from a sizable slice of Europe to a single Mediterranean rock. Elba is the largest of the Tuscan archipelago group between Corsica and the northwest coast of Italy, but nevertheless not much larger than the District of Columbia. Napoleon once looked down upon its whole extent from a mountain height, an irregular red and green lump emerging abruptly from a turquoise sea, and commented dryly: "My island is somewhat small."

Elba, the imperial Eagle's cage, has a coastal outline suggesting a spread eagle with one wing closely clipped. In less than a hundred square miles, the island contains three mountain ridges. Their slopes bristle with evergreen shrubs and are dotted with white villas of wealthy Italians from the mainland, and with weather-stained villages of approximately 25,000 Tuscan natives.

It is a trip of only seven miles from the nearest point of Italy's mainland, Piombino, to Portoferraio (Iron Port), Elba's capital. Here live more than a third of the island's inhabitants. The town's tall yellow, rose, and tan houses terrace the horseshoe of hills around the blue bay like seats in a stadium, with shadowy stone stairways instead of streets climbing the steep slopes (illustration, next page).

Across the sun-softened colors of the houses and the crimson or violet sails in the harbor spreads the gloom of industry—black smoke from the blast furnaces for smelting iron ore, explaining the Greek name for Elba: "Soot Island."

Paper Roses on Throne, Bees on Flag

The main act of Elba's drama was the brief musical comedy in which the obscure Mediterranean spot was co-starred with Napoleon. On May 3, 1814, after a five months' siege by British vessels, the surprised islanders learned that peace and the British sloop *Undaunted* had reached the harbor of Portoferraio, bringing them the honor of being a kingdom and a real live second-hand emperor to be their king.

On May 4, Napoleon landed, and up went the flag which he had hastily concocted for his pocket-size empire: three bees on a broad orange stripe diagonally crossing a white field. His throne was only a couch decorated with paper roses, but the show went on nevertheless. Receptions, balls and formal presentations at court put gloves on many Elbans for the first time in their lives.

Because he had windmills torn down in preparing the villa to be his Elban headquarters, his subjects nicknamed it Windmill Palace.

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loomed the northern wall of the Canyon, the whole compact arrangement giving protection against the unnamed enemy whom the Pueblos feared enough to wall up doors and windows. The apartment dweller of Pueblo Bonito entered his home, as a rule, through the roof, by a ladder he could pull up after him in case of attack.

While the men of the pueblo tracked across the mesa on a community deer or rabbit hunt, the women tended their backyard gardens, carried on their extremely tidy and efficient housekeeping, and actually ran the whole apartment city. Historians believe that the entire Pueblo Bonito was owned as well as operated by the womenfolk. Their skill in pottery-making still commands admiration, for many museums have bowls and vases showing their delicate black designs traced on gray clay.

The skill of Pueblo Bonito artists is seen also in the jewelry recovered from the ruins—the little jet frog with turquoise eyes and necktie, the turquoise birds, and the handsome necklace of 2,500 turquoise beads carefully polished to match in size and shape. The necklace and the turquoise ear pendants to match, as well as samples of the famous Pueblo Bonito pottery, are on display in the Washington, D. C., headquarters of the National Geographic Society.

Note: Additional references and photographs about Pueblo Bonito are to be found in the following: "New Mexico Melodrama," *National Geographic Magazine*, May, 1938; "The Secret of the Southwest Solved by Talkative Tree Rings," December, 1929; "Everyday Life in Pueblo Bonito," September, 1925; "Pueblo Bonito, the Ancient," July, 1923; "Pueblo Bonito Expedition of the National Geographic Society," March, 1922; and "New National Geographic Society Expedition," June, 1921.

Bulletin No. 4, November 28, 1938.

Photograph by Neil M. Judd

INDIAN BABIES HAVE NO BED OF ROSES

This Navajo papoose wears his bed as snugly as a snail does, with a halolike hoop to protect his head. Like the rest of his people, he will probably have a slight flattening of the back of his skull, due to lying on his hard cradleboard. This Navajo family has settled down at Pueblo Bonito. A thousand years after the Pueblos learned to build their 10th-century tenements with rooftop doorways for 1,200 people, the Navajos still build hogans, or huts of earth, with an entrance at ground level.

Napoleon played so well the role of a busy-bee king in a little busy-bee kingdom, even with bees on the flag, that Europe breathed a sigh of relief and forgot the bee in his bonnet. At his summer villa of San Martino, on a mountainside 3 miles southwest of Portoferraio, he masqueraded as a country gentleman with a half-dozen cows, a flock of chickens, and a vegetable garden.

On the day after his arrival Napoleon set out to explore the length and breadth of his miniature kingdom (length, 19 miles; breadth, about 5). Finding that digging for iron ore was Elba's only occupation, he tried to encourage agriculture; grape vines and fruit trees are pointed out as having been planted at his instigation.

He had roads built, marshes drained, and villas constructed. He undertook a miniature program of colonization, extending his empire to embrace the nearby dots of Pianosa and Palmaiola. But the greatest improvement of all, he gave Elba a basis for national pride. At last the island could boast of a flag, a court, a king, and—all too soon for the Elbans—a past.

Note: See also "The *Pilgrim* Sails the Seven Seas," *National Geographic Magazine*, August, 1937.

Bulletin No. 5, November 28, 1938.

Photograph by Deutscher Aero Lloyd, A. G.

IN ELBA'S "PORT OF IRON" HARBOR, THE IRON MAN OF FRANCE DROPPED ANCHOR

Exiled Napoleon landed in the toy-town capital, Portoferraio, to rule his comic opera kingdom for ten months. Fingers were cheerfully blistered with much playing of mandolins, and the fallen monarch was so besieged with serenades and informal chatty visits that he took refuge in the fortified palace on the heights (upper left) at the summit of the city's steep main street, Grand Staircase. The lighthouse beyond guides ships into the harbor for the iron ore which makes Elba so valuable to Italy; smelting blackens the lower part of the picture.

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